

**IN THE CLAIMS:**

1. (Currently Amended) A system for cooling a processor, the system comprising:  
the processor;  
a heat sink assembly having a fan, ~~walls~~ a plurality of fins, and a bottom surface,  
wherein the ~~walls~~ plurality of fins and at least a portion of the bottom surface define ~~an~~  
~~air channel~~ channels, and the heat sink assembly is ~~configured to be~~ disposed onto the  
processor; and  
a heat sink lid coupled to the heat sink assembly, wherein:  
the heat sink lid ~~is configured to leave a substantial portion of the air~~  
~~channel uncovered~~ only covers a portion of the air channels proximate the fan,  
the heat sink assembly is ~~further~~ configured such that air flows directly  
from the fan along the bottom surface of the heat sink assembly, and  
the length of ~~the at least a portion of the bottom surface~~ of at least one fin  
of the plurality of fins is equal to or ~~grater~~ greater than the length of the  
processor.
2. (Original) The system of claim 1, further comprising a thermal adhesive disposed  
on an outer surface of the heat sink assembly for thermally coupling the heat sink  
assembly to the processor.
3. (Previously Presented) The system of claim 1, wherein the uncovered portion of  
the air channel reduces air flow noise in the system during operation.
4. (Previously Presented) The system of claim 3, wherein the uncovered portion of  
the air channel reduces air flow noise by preventing the formation of a standing wave  
within the air channel during operation.
5. (Previously Presented) The system of claim 4, wherein the uncovered portion of  
the air channel prevents the formation of the standing wave by preventing the reflection  
of an incident wave propagating within the air channel during operation.

6. (Original) The system of claim 1, wherein the heat sink lid includes an edge configured to reduce turbulent flow of air escaping from the air channel and flowing across the edge.

7. (Original) The system of claim 6, wherein the edge is substantially perpendicular to a direction of air flow within the air channel.

8. (Original) The system of claim 1, wherein the processor comprises a graphics processing unit.

9. (Original) The system of claim 1, wherein the processor comprises a central processing unit.

10. (Original) The system of claim 1, wherein the processor comprises an application-specific integrated circuit.

11-16. (Canceled)

17. (Currently Amended) The system of claim 1, wherein the heat sink assembly further has a wall and the heat sink lid is directly coupled to the ~~walls~~ wall.

18. (Previously Presented) The system of claim 1, wherein the bottom surface is substantially flat.

19-21. (Canceled)